United States
Environmental Protection
Agency

EPA-305-B-06-002
September 2006

INSPECTION TOOL FOR THE MISCELLANEOUS ORGANIC CHEMICAL MANUFACTURING NESHAP Appendices

Air Compliance Branch
Compliance Assessment and Media Programs Division (CAMPD)
Office of Compliance (OC)
Office of Enforcement and Compliance Assurance (OECA)
U.S. Environmental Protection Agency Washington, DC 20460

Appendix A

Questions and Answers on Provisions in Subpart FFFF

[This page intentionally left blank.]

Applicability

QA1. Does the replacement and/or debottlenecking of process equipment in an existing miscellaneous chemical manufacturing process unit (MCPU) make the MCPU a reconstructed facility subject to new source standards?

AA1. Yes, under certain conditions. A new affected source can be created through either the construction or reconstruction of an affected source (the facility-wide collection of MCPU and heat exchange systems, wastewater, and waste management units that are associated with manufacturing miscellaneous organic chemicals) or a dedicated MCPU. (See section 63.2440(c)). "Construction", as defined in section 63.2550, applies to the on-site fabrication, erection, or installation of an affected source or MCPU. Since the MCPU described is existing, the only way the facility would have a new affected source after implementing the changes is if the changes satisfy the criteria in the definition of reconstruction (i.e., the capital cost of the replaced equipment exceeds 50% of the capital cost of a comparable new source of either a dedicated MCPU (one with a PTE of at least 10/25 tpy) or an affected source. In the case of the reconstruction of a dedicated MCPU, the changes could constitute reconstruction for the dedicated MCPU alone so that it becomes a new affected source, while the collection of all of the other MCPU's at the facility are still an existing affected source. Debottlenecking of a process with no replacement of equipment would not trigger new source requirements.

QA2. A process unit which produces an North American Industry Classification System (NAICS) 325 organic chemical is located at a major source under 40 CFR part 63 and includes facilities affected by other MACT standards. The process unit does not process, use or produce a HAP. Is this process unit an subject to the Miscellaneous Organic National Emission Standards for Hazardous Air Pollutants (MON)? If so, what are compliance requirements?

AA2. No. The MCPU is not subject to the MON (subpart FFFF). Section 63.2435(b)(2) specifies that an MCPU must "process, use, or produce" a hazardous air pollutant (HAP) for it to be subject to subpart FFFF.

QA3. The statutory definition of "Research & Development (R&D) facility" is somewhat general. How can a facility justify that a pilot system qualifies as an R&D facility?

AA3. The rule doesn't address pilot scale operations specifically, but it would have to meet the statutory definition for R&D (see section 112(c)(7) of the CAA) to meet the exemption at section 63.2345(c)(1). A facility wishing a determination of applicability should submit a formal request in writing to their delegated authority.

QA4. A plant uses hydrochloric acid to regenerate ion exchange (I-X) resin which is not associated with any MON process. From the definition of ancillary, the I-X system would appear to be an "ancillary" activity. Would the hydrochloric acid (HCl) storage tank also be included with the I-X ancillary activity and exempt from MON requirements?

AA4. An ancillary activity determination would be made only for a MON process. Thus, the ion exchange system as described in the question are exempt from the MON because the process it is associated with is not a MON process. On the other hand, if it were a MON process, then

the ion exchange system would be an ancillary activity that is exempt from the MON. In either case, applicability for the HCl storage tank would depend on the predominant use of the HCl, as detailed in section 63.2435(d). For example, if the HCl were used only in the ion exchange system, then the storage tank would be part of the ancillary activity and exempt from the MON. Alternatively, if some of the HCl is used in the process, then the predominant use will determine whether the storage tank is part of the MCPU or exempt.

QA5. What is the difference between primary product determinations in the Hazardous Organic National Emission Standards for Hazardous Air Pollutants (HON) rule versus the MON rule?

AA5. The HON uses a primary product determination to identify process units that are subject to the HON (i.e., all processes operated in equipment for which the primary product is a material listed in Table 1 to subpart F). The MON, on the other hand, does not use a primary product determination to establish process applicability because the MON applies to processes that produce materials that meet the criteria specified in section 63.2435(b) whenever such materials are produced; the production of other materials in the same equipment, or different configurations of the equipment, at other times has no bearing on the applicability determination (and the MON does not apply to the production of these other materials). However, a primary product determination is included in the MON as part of an option for minimizing the burden of complying with overlapping standards for non-dedicated (multipurpose) equipment. This "process unit group" option in section 63.2535(l) allows an owner or operator to determine the primary product for a collection of non-dedicated equipment; typically, the owner or operator may then comply with the NESHAP that applies to that material at all times, regardless of what process the equipment is configured to produce.

QA6. Two reactors that share no equipment. One is used to make methyl esters only. The other is used to make esters, a small percentage of which is methyl ester. Are the two reactor trains part of the same process?

AA6. When similar products are produced, the manufacturer must evaluate information on each product to determine if any of them are part of a family of materials (FOM) as defined in section 63.2550(i). The question does not indicate how many different esters (including methyl esters) are produced, and it does not provide enough information to determine if any of the esters are part of the same FOM. Thus, we can provide only a general response that may not address all possible scenarios. One extreme is if all of the esters, including methyl esters, are part of the same FOM. In this case, production of all of the esters is considered to be a single MCPU (i.e., both reactor trains always are part of the same MCPU). The other extreme would be if none of the esters form a FOM. For this scenario, because the MON is a process-based standard rather than an equipment-based standard, production of each ester would constitute a separate MCPU. This means the MCPU for a particular ester exists whenever that ester is being produced in any equipment (i.e., both reactor trains could be part of the same MCPU from time to time, but only if they are both used to produce the same ester). Between these two extremes are potentially numerous scenarios where various esters are part of a FOM and others are not. Since one reactor train is dedicated to the production of methyl esters, the two reactor trains would be part of the same MCPU only under conditions similar to those described for the two extremes (i.e., for each FOM that uses both reactors, or for any individual methyl ester that is not part of a FOM and is

produced using both reactors). Finally, note that if any of the ester production processes do not use, produce, or process HAP, then the MON would not apply during production of those esters.

QA7. Does a non-dedicated unit that is subject to Subpart JJJ and for which no controls are required need to be evaluated under MON?

AA7. No, there cannot be an affected source subject to both rules at the same time. If the process unit is designated as a TPPU under subpart JJJ, then it is not subject to subpart FFFF, even when making products other than thermoplastics, unless the primary product determination changes and it is no longer subject to subpart JJJ.

Process vents

QPV1. What is the averaging period for demonstrating on-going compliance with the alternative standard for vents?

APV1. Section 63.2505(b)(7) specifies that compliance with the alternative standard is based on daily averages.

QPV2. If performance tests are conducted and show compliance with 20-ppmv limit, must a CEMS be installed or can compliance be demonstrated with surrogate parameter monitoring?

APV2. Parameter monitoring is allowed if complying with the procedures specified in sections 63.2450 through 63.2470 and Tables 1 through 4. For example, one of the emission limit options specified in Table 1 is a 20 ppmv outlet concentration limit. Section 63.2450(d) specifies that if you reduce emissions by venting emissions through a closed-vent system to a control device (to comply with emission limit in table 1), then you must meet the requirements in section 63.982(c). This section then refers you to other sections in subpart SS, including parameter monitoring requirements in 63.988(c) for combustion control devices. Alternatively, section 63.2505, the "alternative standard", is a method of compliance which specifies a 20 ppmv outlet concentration limit (for combustion devices) for which compliance must be demonstrated by using CEMS.

QPV3. For MCPUs with both batch and continuous process vents, if the batch and continuous vents are not manifolded together, is the total resource effectiveness (TRE) applied to the continuous vent and the 10,000 lb/yr exemption applied separately to the batch vents?

APV3. Yes, that is correct. Additionally, even if the streams are manifolded together, the Group status of the vents must be determined independently, but the owner/operator may use the hierarchy for combined streams at section 63.2450(c) for determining the applicable requirements.

QPV4. How are streams that are unsafe to meet required control addressed under the rule? For example, a high hydrogen-containing stream which cannot be combusted?

APV4. The rule has provisions at 63.2450(q) for a narrowly defined a class of energetics and organic peroxides producers and allows, on a case-specific basis, a procedure to request an

alternative compliance option. For these materials, the owner or operator must prepare and submit documentation in the precompliance report explaining why an undue safety hazard would be created if the air emission controls specified in 40 CFR part 63, subpart FFFF, were installed on process vents, wastewater, and storage tanks containing energetics and organic peroxides, and describing what practices would be implemented to minimize HAP emissions. The rule does not currently have procedures for other classes of compounds which may cause a safety issue.

QPV5. Is a non-dedicated process vent subject to Polymers and Resins (P&R) IV Maximum Achievable Control Technology (MACT) standard also subject to the MON? Does the TRE have to be recalculated under MON if the primary product is a P&R IV process?

APV5. No, there cannot be an affected source subject to both rules at the same time. If the process unit is designated as a thermoplastic product process (TPPU) under subpart JJJ, then it is not subject to subpart FFFF, even when making products other than thermoplastics, unless the primary product determination changes and it is no longer subject to subpart JJJ.

QPV6. Within a HON regulated CMPU, there is a periodic "unit operation" in which carbon beds are regenerated to drive off HAP. This practice results in a non-continuous vent to the control device (CVS furnace-scrubber). Uncontrolled HAP emissions are >200 lb/yr. Is this a MON regulated batch process vent? Right now, we can control this vent under our state's air toxics rule.

APV6. If the carbon beds are used as control devices to meet requirements in the HON, then they are not subject to the MON. However, if the carbon beds are used within the process (e.g., to purify a product), then they would be batch operations with batch process vents that are subject to the MON.

QPV7. Within a MON regulated MCPU there is a maintenance knock out drum. The drum is used to collect solvent (HAP) that is flushed through equipment prior to opening for maintenance. The drum bottoms are either routed back to the reactor as a feedstock, or sent off-site for disposal. What is the correct classification of this drum? Is it a surge control vessel when the material is sent back to the process and a process tank when material is sent for offsite disposal? Assuming the gas stream off of the drum is considered a batch process vent and is the only batch vent in the process, if its uncontrolled emissions are < 10,000 lb/yr and it is manifolded with a Group 1 continuous process vent, do I comply with the provision for continuous halogenated PV's in the hierarchy at section 63.2450(c)(2)(ii)?

APV7. The solvent flush and collection of spent solvent in the knock out drum is a cleaning operation that meets the definition of "shutdown" because this activity is conducted only when ceasing continuous operations, in this case to perform maintenance. Thus, the owner or operator should comply with the requirements for startup, shutdown, and malfunction for this activity as specified in sections 63.8(e), 63.998(d)(3) and (c)(1)(ii)(D), and 63.2520(d)(4) and (5). For example, procedures for this activity should be described in the facility's startup, shutdown, and malfunction plan (SSMP). Since the shutdown activity involves more than just the knock out drum, the SSMP should address procedures for operating and maintaining the process equipment to minimize emissions during the cleaning activity in addition to procedures for the knockout

drum. The ultimate disposition of both layers from the knock out drum do not affect the requirements, except that they must be described in the SSMP.

QPV8. A MON MCPU and several HON chemical manufacturing process units (CMPU's) share a common control device. A HON performance test was performed in 1998. The MON MCPU was constructed in 2001, after the performance test. Can the facility use the HON test for the MON compliance demonstration?

APV8. Section 63.997 of subpart SS governs the use of prior test results. The owner or operator should request permission to substitute a prior test by written application to the Administrator as specified in 63.999(a)(1)(iv). For MON batch process vents, requirements of section 63.1257(b)(8) must be met.

Wastewater

QWW1. Is the HAP content in hydrocarbon included in the determination of wastewater (WW) characteristics, or are hydrocarbons presumed to be removed by the recovery device?

AWW1. HAPs in all phases of wastewater, not just aqueous phase, must be included in the Group determination.

QWW2. Can a recovery device (to remove hydrocarbons) be physically located downstream at the wastewater treatment plant (WWTP), or does it have to be at the process area?

AWW2. A recovery device may be located at the WWTP

QWW3. Can hydrocarbon recovered in a WW stream stripper be returned to the process, or does it have to be destroyed?

AWW3. Recovered chemicals may be returned to the process.

QWW4. A MON plant routes its wastewater to the wastewater treatment system of an adjacent paper mill (owned by the same company).

- Does the paper mill need to submit an initial notification that it will be receiving/treating MON wastewater?
- Is the paper mill considered an "off-site treater"?

AWW4. "Major source means any ...group of stationary sources located within a contiguous area under common control ..." Therefore, the paper mill would be part of the source and not an off-site treater.

QWW5. In determining the "annual average flow rate" for a wastewater stream from batch operations, do you always assume 8760 hours/year operation, or do you divide by total hours of batch activity?

AWW5. Assume 8760 hr/yr, as in the HON.

QWW6. What are the requirements for wastewater going to a RCRA incinerator?

AWW6. Wastewater going to RCRA units is covered by the rule as a compliance option. The rule lets you send the wastewater either offsite or onsite to a RCRA unit. If it goes offsite to a RCRA incinerator, section 63.2485(i)(1) allows you to document in the notification of compliance status report that the wastewater will be treated as hazardous waste at an offsite facility that meets the requirements of section 63.138(h) and waives the requirement for the offsite treater to submit certification. Note that the notice required by section 63.132(g)(1)(ii), that must accompany each shipment, has not been overridden, and that the stringency determination requirements of section 63.2535(g) must still be performed and documented in the notification of compliance status report.

Equipment leaks

QEL1. Does the leak detection method for disturbed equipment have to be Method 21 or can the equipment be visual or vacuum tested?

AEL1. When complying with the requirements of subpart UU as specified in Table 6 to subpart FFFF, there is the option of complying with the pressure/vacuum testing alternative means of emission limitation in section 63.1036(b), rather than monitoring each component. Section 63.2480(c) specifies that no testing is required when flexible hose connections are the only disturbed equipment in an equipment train. Whenever any other components are disturbed, a test must be conducted as specified in 63.1036(b). Neither Method 21 or visual monitoring is part of this option.

QEL2. Are pressure relief devices (PRDs) on storage tanks subject to leak detection and repair (LDAR) under the MON? Are they considered to be in gas service? Is vacuum testing only allowed in subpart UU?

AEL2. LDAR programs don't apply to PRDs which are conservation vents on storage tanks. However, for a Group 1 storage tank, PRDs could be part of the closed vent system (CVS) to a control device and, therefore, would be subject to the requirements for CVS as specified in section 63.983 of subpart SS. A PRD that is part of a CVS on a Group 2 storage tank is not subject to CVS requirements. Subpart TT does not have provisions for vacuum testing as an alternative means of emission limitation.

QEL3. A process was originally subject to subpart I of the HON for methylene chloride at a PHARMA Plant. The process is now subject to the PHARMA MACT and its LDAR requirements, but has an approved P2 compliance plan. Is the PMPU subject to any LDAR under the MON?

AEL3. The PMPU is still part of the pharmaceuticals production affected source that is subject to subpart GGG. Thus, it is not subject to subpart FFFF. Furthermore, if the source is in compliance with the P2 alternative in subpart GGG, and the P2 alternative includes equipment in the PMPU subject to the LDAR requirements for GGG, then no LDAR is required for that equipment which is part of the P2 plan.

QEL4. If a major source has equipment that is subject to subpart I (which requires compliance through subpart H), and now has a MON affected source, can the source opt to comply only with Subpart H of the HON for all the equipment?

AEL4. Yes, section 63.2535(d) specifies that if you have an affected source (i.e., a MON affected source) and you also have equipment (anywhere at the major source) that is subject to subpart I, then you may elect to comply with the requirements of subpart H for all of the equipment.

QEL5. How does one determine the monitoring frequency for nondedicated equipment that is used to produce multiple products, some of which may use volatile organic HAP (VOHAP) and some of which may not? For example, some of the equipment components are in (VOHAP) service a few months and then empty. Some are in VOHAP service then in non-VOHAP service.

AEL5. MON LDAR requirements are in effect for the components anytime they are in VOHAP service. Subpart UU has alternative provisions in section 63.1036(c)(3)(iv) to simplify equipment monitoring for batch processes based on the proportion of the year the batch product process that is subject to the provisions of subpart UU are operating. If the source elects not to use the batch monitoring frequencies in Table 1 per section 63.1036, then the component should be monitored at the appropriate frequency per the requirements of sections 63.1025 through 63.1034. If the component is not in VOHAP service during the scheduled monitoring period, then the monitoring would be done during the next period when the equipment is in VOHAP service.

QEL6. Is valve position monitoring an acceptable means to flow monitor a bypass valve? Does the 5% minimum HAP concentration limit apply to CVS monitoring?

AEL6. Subpart FFFF references CVS requirements in subparts SS and G. Sections 63.983(a)(3)(i) in subpart SS and 63.148(f)(1) in subpart G specify that bypass monitoring may be accomplished by using a flow indicator at the entrance to the bypass line. According to the definition of flow indicator in sections 63.981 and 63.111, the valve position may be used to determine whether gas flow could be present in a line. Also, neither subpart FFFF nor the referenced CVS provisions in sections 63.983 and 63.148 specify a minimum HAP concentration level below which CVS monitoring is not required.

QEL7. Can historical quarterly monitoring data showing <2% leak rate for valves be used to begin skip monitoring for MON? Or must the historical data be monthly?

AEL7. According to section 63.1025(b)(3)(ii), monitoring data collected both before a source becomes subject to subpart FFFF and in accordance with the criteria specified in sections 63.1023(b)(1) through (5) or in section 63.1023(b)(6) may be used to qualify initially for less frequent monitoring. Thus, historical quarterly monitoring data obtained using the specified methods and showing that <2 percent of the valves are leaking may be used to qualify for skip monitoring at the appropriate frequency specified in sections 63.1026(b)(3)(ii) through (v). For example, if historical quarterly data show the percent leakers are between 1 and 2 percent, then the owner or operator may continue with quarterly monitoring after the compliance date. Note that the percent leakers determination must be based on an average from at least two sets of data in accordance with section 63.1025(c)(2).

QEL8. In the Organic Liquid Distribution (OLD) MACT if controls are not required for loading racks and storage tanks, then LDAR is not required. Why doesn't the MON have this OLD provision?

AEL8. The MON is a different source category with a different MACT floor determination.

Heat exchangers

QHE1. Does monthly monitoring of heat exchange/cooling towers need to begin on/after the compliance date or can it start early?

AHE1. Nothing in the regulation precludes the facility from early compliance with the standards.

QHE2. Does the inlet and outlet of each heat exchanger need to be tested or can groups of heat exchangers be tested? From a cooling tower, can the inlet concentration to all of the heat exchangers be tested once?

AHE2. Table 10 to subpart FFFF specifies that heat exchangers must comply with the requirements of section 63.104 for each heat exchange system. The introductory paragraph in section 63.104(b) specifies that the sample may be taken "at either the entrance and exit of each heat exchange system or at locations where the cooling water enters and exits each heat exchanger or any combination of heat exchangers." For a recirculating system, if the owner or operator elects to sample over the entire system, section 63.104(b)(1) specifies that the entrance is the point at which the cooling water leaves the cooling tower prior to being returned to the process equipment.

General requirements, recordkeeping, and reporting

QG1. There are specific requirements for hydrogen halide and halogen HAP (HF, HCl, Cl_2) for process vents, but what are the requirements, if any, for these 3 HAPs in storage tanks, equipment leaks, and/or waste water? If there are requirements, what test methods would be used to determine compliance?

AG1. Storage tank requirements make no distinction between organic HAPs and other HAPs (the maximum true vapor pressure must be determined for the HAP that are stored). Table 6 to subpart FFFF specifies that equipment leak requirements apply only to equipment that is in organic HAP service; organic HAP does not include hydrogen halide and halogen HAP. Section 63.2485(c) and Tables 8 and 9 to subpart FFFF specify which HAP are subject to wastewater requirements; hydrogen halide and halogen HAP are not included. In addition, note that all emission types are subject to requirements if the HAP are halogenated (i.e., contain organic compounds where the halogen atom content exceeds 0.45 kg/hr), and some of these requirements may be the same as for hydrogen halide and halogen HAP.

QG2. Is continuous monitoring system (CMS) equal to continuous parametric monitoring system (CPMS) in compliance report requirements? What are the requirements for continuous emissions monitoring systems (CEMS)?

AG2. According to section 63.2 of the General Provisions to 40 CFR part 63, CEMS and CPMS are different types of CMS. Table 12 to subpart FFFF specifies that CMS requirements in the General Provisions apply only to CEMS, whereas requirements for CPMS are specified in subparts G and SS. Additional requirements for CEMS are specified in section 63.2450(j) of subpart FFFF. Finally, the compliance reporting requirements in section 63.2520(e)(5)(iii) for deviations when a CMS is used to comply with an emission limit apply to both CPMS and CEMS, except for some information that is required only for CEMS (e.g., information about the date, time, and duration of out of control periods is required only for CEMS).

QG3. What is an example of an operating scenario? Would changing to a different product in the same equipment constitute a different operating scenario?

AG3. An operating scenario includes the information listed at section 63.2525(b), and the operating scenario for each MCPU is unique because it includes information specific to the product or family of materials that defines the MCPU, even if the equipment is the same as for another MCPU. Thus, changing to a different product that is not part of the same family of materials always means a different operating scenario is now applicable. Additionally, an owner or operator may opt to have multiple operating scenarios for a single product, or family of materials, in order to have the operational flexibility to employ differing compliance strategies.

QG4. If you have a Group 2 emission point that could exceed the Group 1 thresholds during an SSM event, are they required to be included in the startup, shutdown, and malfunction plan (SSMP)? If no, is it recommended? Can the owner/operator (o/o) choose to include them? How must they be reported?

AG4. Per 63.2525(j), Group 2 streams do not need to be addressed in the SSMP, even if they exceed the Group 1 threshold during an startup, shutdown, and malfunction (SSM) event. There is no requirement to report SSM of Group 2 emission streams. The o/o may choose to include Group 2 emission points in the SSMP at their discretion.

QG5. How do the definitions of batch startup and shutdown apply to batch processes. The rule states that the startup of a campaign under normal procedures (i.e., steps) is NOT a startup as defined in the rule.

AG5. That is correct. Routine operations are not considered startup or shutdown. The beginning of a campaign after maintenance or after switching to a product that has been produced in the past are considered to be routine. We consider between batches, ending a campaign, or ending a batch for planned, preventative maintenance to be routine. These routine operations include both standard and nonstandard batches. A nonstandard batch is a reasonably anticipated variation of the standard MCPU. For example, an additional purification step necessary to meet quality assurance may constitute a nonstandard batch for which additional emissions may need to be calculated. If the steps taken to put a particular batch into operation or to cease operation differ from those specified in a standard batch or nonstandard batch (i.e., are not routine), then the event would be startup or shutdown as specified in the definitions for these terms in section 63.2550(i).

QG6. Is data compression allowed under MON?

AG6. The MON refers to recordkeeping requirements in subparts SS and G. Data compression is allowed for data that meet the requirements specified in sections 63.998(b)(1), (3)(ii), (5)(i), and (5)(ii) of subpart SS and sections 63.152(f) and (g) of subpart G.

QG7. The only MON requirement for pressure release vents (PRVs) is under LDAR. For a malfunction resulting in the lifting of a PRV, is it correct to consider that excess emissions occur only if the LDAR requirement is not met (i.e., not monitored for <500 ppm leakage within 5 days after the release)?

AG7. If the o/o does not re-monitor and record the results of the monitoring after the PRV lifted, that would be a deviation of the LDAR requirements in section 63.1011(c) or section 63.1030(c). The term excess emissions applies to the SSM of process operations, i.e., the PRV lifting, according to 63.998(d)(3), as well as the SSM of the CVS or CD according to 63.998(c)(1)(ii)(D)-(G).

QG8. Can a source submit more than one precompliance report to address issues that arise after the initial submittal?

AG8. Additional reports may be submitted up to the date the precompliance report is due. After the compliance date of rule, section 63.2520(e)(10)(ii) contains the provisions for submitting items which require preapproval (submit 60 days before the change). The rule does not currently address the situation where something comes up in between the 6 month period after submittal of the precompliance report and prior to the compliance date.

QG9. Must monitoring and recordkeeping continue during periods of non-operation of process equipment (e.g., seasonal shutdown)?

AG9. Section 63.998(b)(2)(ii) specifies that any data collected during "periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies" are to be excluded from averages used to determine compliance.

QG10. The MON references subpart SS for flare requirements. Is there a deviation if there is a data point for a steam or air-assisted flare where the net heating value of the gas being combusted is <300 BTU/scf, but the hourly average is >300 BTU/scf?.

AG10. The MON requires owners or operators using a flare to control batch or continuous vents to meet the requirements for flares in 40 CFR 63.987, which reference section 63.11(b) of the General Provisions for flare performance requirements. The 300 Btu/scf is the performance criteria established for initial compliance, not an on-going parametric monitoring requirement. The on-going parametric monitoring requirements for flares is found at section 63.987(c) and include the detection of the pilot or flare flame.

QG11. The rule requires data during SSM venting to be included in the daily averages. However, section 63.2450(a) says that the o/o must be in compliance with emission limits except during periods of SSM. This does not seem to agree with the requirement to include SSM events in the daily averages.

AG11. The o/o has to include data collected during the SSM event to know whether or not excess emissions occurred during the SSM event. Section 63.998(c)(1)(ii)(E) and (d)(3) of subpart SS require records of each SSM event during which excess emissions occur.

[This page intentionally left blank.]

Appendix B

Definitions in Subpart FFFF

[This page intentionally left blank.]

Ancillary activities means boilers and incinerators (not used to comply with the emission limits in Tables 1 through 7 to this subpart), chillers and refrigeration systems, and other equipment and activities that are not directly involved (i.e., they operate within a closed system and materials are not combined with process fluids) in the processing of raw materials or the manufacturing of a product or isolated intermediate.

Batch operation means a noncontinuous operation involving intermittent or discontinuous feed into equipment, and, in general, involves the emptying of the equipment after the operation ceases and prior to beginning a new operation. Addition of raw material and withdrawal of product do not occur simultaneously in a batch operation.

Batch process vent means a vent from a unit operation or vents from multiple unit operations within a process that are manifolded together into a common header, through which a HAP-containing gas stream is, or has the potential to be, released to the atmosphere. Examples of batch process vents include, but are not limited to, vents on condensers used for product recovery, reactors, filters, centrifuges, and process tanks. The following are not batch process vents for the purposes of this subpart:

(1) Continuous process vents;

(2) Bottoms receivers;

(3) Surge control vessels;

(4) Gaseous streams routed to a fuel gas system(s);

(5) Vents on storage tanks, wastewater emission sources, or pieces of equipment subject to the emission limits and work practice standards in Tables 4, 6, and 7 to this subpart;

(6) Drums, pails, and totes;

(7) Flexible elephant trunk systems that draw ambient air (i.e., the system is not ducted, piped, or otherwise connected to the unit operations) away from operators when vessels are opened; and

(8) Emission streams from emission episodes that are undiluted and uncontrolled containing less than 50 ppmv HAP are not part of any batch process vent. A vent from a unit operation, or a vent from multiple unit operations that are manifolded together, from which total uncontrolled HAP emissions are less than 200 lb/yr is not a batch process vent; emissions for all emission episodes associated with the unit operation(s) must be included in the determination of the total mass emitted. The HAP concentration or mass emission rate may be determined using any of the following: process knowledge that no HAP are present in the emission stream; an engineering assessment as discussed in §63.1257(d)(2)(ii), except that you do not need to demonstrate that the equations in §63.1257(d)(2)(i) do not apply, and the precompliance reporting requirements specified in §63.1257(d)(2)(ii)(E) do not apply for the purposes of this demonstration; equations specified in §63.1257(d)(2)(i), as applicable; test data using Method 18 of 40 CFR part 60, appendix A; or any other test method that has been validated according to the procedures in Method 301 of appendix A of this part.

Biofilter means an enclosed control system such as a tank or series of tanks with a fixed roof that contact emissions with a solid media (such as bark) and use microbiological activity to transform organic pollutants in a process vent stream to innocuous compounds such as carbon dioxide, water, and inorganic salts. Wastewater treatment processes such as aeration lagoons or activated sludge systems are not considered to be biofilters.

Bottoms receiver means a tank that collects bottoms from continuous distillation before the stream is sent for storage or for further downstream processing.

Construction means the onsite fabrication, erection, or installation of an affected source or MCPU. Addition of new equipment to an MCPU subject to existing source standards does not constitute construction, but it may constitute reconstruction of the affected source or MCPU if it satisfies the definition of reconstruction in §63.2.

Consumption means the quantity of all HAP raw materials entering a process in excess of the theoretical amount used as reactant, assuming 100 percent stoichiometric conversion. The raw materials include reactants, solvents, and any other additives. If a HAP is generated in the process as well as added as a raw material, consumption includes the quantity generated in the process.

Continuous operation means any operation that is not a batch operation.

Continuous process vent means the point of discharge to the atmosphere (or the point of entry into a control device, if any) of a gas stream if the gas stream has the characteristics specified in §63.107(b) through (h), or meets the criteria specified in §63.107(i), except:

(1) The reference in §63.107(e) to a chemical manufacturing process unit that meets the criteria of §63.100(b) means an MCPU that meets the criteria of §63.2435(b);

(2) The reference in §63.107(h)(4) to §63.113 means Table 1 to this subpart;

(3) The references in §63.107(h)(7) to §§63.119 and 63.126 mean Tables 4 and 5 to this subpart; and

(4) For the purposes of §63.2455, all references to the characteristics of a process vent (e.g., flowrate, total HAP concentration, or TRE index value) mean the characteristics of the gas stream.

(5) The reference to "total organic HAP" in §63.107(d) means "total HAP" for the purposes of this subpart FFFF.

(6) The references to an "air oxidation reactor, distillation unit, or reactor" in §63.107 mean any continuous operation for the purposes of this subpart.

(7) A separate determination is required for the emissions from each MCPU, even if emission streams from two or more MCPU are combined prior to discharge to the atmosphere or to a control device.

Dedicated MCPU means an MCPU that consists of equipment that is used exclusively for one process, except that storage tanks assigned to the process according to the procedures in §63.2435(d) also may be shared by other processes.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard; or

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limit, operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Emission point means each continuous process vent, batch process vent, storage tank, transfer rack, and wastewater stream.

Energetics means propellants, explosives, and pyrotechnics and include materials listed at 49 CFR 172.101 as Hazard Class I Hazardous Materials, Divisions 1.1 through 1.6.

Equipment means each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in organic HAP service; and any control devices or systems used to comply with Table 6 to this subpart.

Excess emissions means emissions greater than those allowed by the emission limit.

Family of materials means a grouping of materials with the same basic composition or the same basic end use or functionality produced using the same basic feedstocks with essentially identical HAP emission profiles (primary constituent and relative magnitude on a pound per product basis) and manufacturing equipment configuration. Examples of families of materials include multiple grades of the same product or different variations of a product (e.g., blue, black, and red resins).

Group 1 batch process vent means each of the batch process vents in a process for which the collective uncontrolled organic HAP emissions from all of the batch process vents are greater than or equal to 10,000 lb/yr at an existing source or greater than or equal to 3,000 lb/yr at a new source.

Group 2 batch process vent means each batch process vent that does not meet the definition of Group 1 batch process vent.

Group 1 continuous process vent means a continuous process vent for which the flow rate is greater than or equal to 0.005 standard cubic meter per minute, and the total resource effectiveness index value, calculated according to §63.2455(b), is less than or equal to 1.9 at an existing source and less than or equal to 5.0 at a new source.

Group 2 continuous process vent means a continuous process vent that does not meet the definition of a Group 1 continuous process vent.

Group 1 storage tank means a storage tank with a capacity greater than or equal to 10,000 gal storing material that has a maximum true vapor pressure of total HAP greater than or equal to 6.9 kilopascals at an existing source or greater than or equal to 0.69 kilopascals at a new source.

Group 2 storage tank means a storage tank that does not meet the definition of a Group 1 storage tank.

Group 1 transfer rack means a transfer rack that loads more than 0.65 million liters/year of liquids that contain organic HAP with a rack-weighted average partial pressure, as defined in §63.111, greater than or equal to 1.5 pound per square inch absolute.

Group 2 transfer rack means a transfer rack that does not meet the definition of a Group 1 transfer rack.

Group 1 wastewater stream means a wastewater stream consisting of process wastewater at an existing or new source that meets the criteria for Group 1 status in §63.2485(c) for compounds in Tables 8 and 9 to this subpart and/or a wastewater stream consisting of process wastewater at a new source that meets the criteria for Group 1 status in §63.132(d) for compounds in Table 8 to subpart G of this part 63.

Group 2 wastewater stream means any process wastewater stream that does not meet the definition of a Group 1 wastewater stream.

Halogen atoms mean chlorine and fluorine.

HAP metals means the metal portion of antimony compounds, arsenic compounds, beryllium compounds, cadmium compounds, chromium compounds, cobalt compounds, lead compounds, manganese compounds, mercury compounds, nickel compounds, and selenium compounds.

Halogenated vent stream means a vent stream determined to have a mass emission rate of halogen atoms contained in organic compounds of 0.45 kilograms per hour or greater determined by the procedures presented in §63.115(d)(2)(v).

Hydrogen halide and halogen HAP means hydrogen chloride, hydrogen fluoride, and chlorine.

In organic HAP service means that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAP as determined according to the provisions of §63.180(d). The provisions of §63.180(d) also specify how to determine that a piece of equipment is not in organic HAP service.

Isolated intermediate means a product of a process that is stored before subsequent processing. An isolated intermediate is usually a product of a chemical synthesis, fermentation, or biological extraction process. Storage of an isolated intermediate marks the end of a process. Storage occurs at any time the intermediate is placed in equipment used solely for storage. The storage equipment is part of the MCPU that produces the isolated intermediate and is not assigned as specified in §63.2435(d).

Large control device means a control device that controls total HAP emissions of greater than or equal to 10 tpy, before control.

Maintenance wastewater means wastewater generated by the draining of process fluid from components in the MCPU into an individual drain system in preparation for or during maintenance activities. Maintenance wastewater can be generated during planned and unplanned shutdowns and during periods not associated with a shutdown. Examples of activities that can generate maintenance wastewater include descaling of heat exchanger tubing bundles, cleaning of distillation column traps, draining of pumps into an individual drain system, and draining of portions of the MCPU for repair. Wastewater from routine cleaning operations occurring as part of batch operations is not considered maintenance wastewater.

Maximum true vapor pressure has the meaning given in §63.111, except that it applies to all HAP rather than only organic HAP.

Miscellaneous organic chemical manufacturing process means all equipment which collectively function to produce a product or isolated intermediate that are materials described in §63.2435(b). For the purposes of this subpart, process includes any, all or a combination of reaction, recovery, separation, purification, or other activity, operation, manufacture, or treatment which are used to produce a product or isolated intermediate. A process is also defined by the following:

(1) Routine cleaning operations conducted as part of batch operations are considered part of the process;

(2) Each nondedicated solvent recovery operation is considered a single process;

(3) Each nondedicated formulation operation is considered a single process that is used to formulate numerous materials and/or products; and

(4) Quality assurance/quality control laboratories are not considered part of any process; and

(5) Ancillary activities are not considered a process or part of any process.

(6) The end of a process that produces a solid material is either up to and including the dryer or extruder, or for a polymer production process without a dryer or extruder, it is up to and including the extruder, die plate, or solid-state reactor, except in two cases. If the dryer, extruder, die plate, or solid-state reactor is followed by an operation that is designed and operated to remove HAP solvent or residual HAP monomer from the solid, then the solvent removal operation is the last step in the process. If the dried solid is diluted or mixed with a HAP-based solvent, then the solvent removal operation is the last step in the process.

Nondedicated solvent recovery operation means a distillation unit or other purification equipment that receives used solvent from more than one MCPU.

Nonstandard batch means a batch process that is operated outside of the range of operating conditions that are documented in an existing operating scenario but is still a reasonably anticipated event. For example, a nonstandard batch occurs when additional processing or processing at different operating conditions must be conducted to produce a product that is normally produced under the conditions described by the standard batch. A nonstandard batch may be necessary as a result of a malfunction, but it is not itself a malfunction.

On-site or on site means, with respect to records required to be maintained by this subpart or required by another subpart referenced by this subpart, that records are stored at a location within a major source which encompasses the affected source. On-site includes, but is not limited to, storage at the affected source or MCPU to which the records pertain, or storage in central files elsewhere at the major source.

Operating scenario means, for the purposes of reporting and recordkeeping, any specific operation of an MCPU as described by records specified in §63.2525(b).

Organic group means structures that contain primarily carbon, hydrogen, and oxygen atoms.

Organic peroxides means organic compounds containing the bivalent -o-o- structure which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

Point of determination means each point where process wastewater exits the MCPU or control device.

Note to definition for point of determination: The regulation allows determination of the characteristics of a wastewater stream: At the point of determination; or downstream of the point of determination if corrections are made for changes in flow rate and annual average concentration of soluble HAP and partially soluble HAP compounds as determined according to procedures in §63.144 of subpart G in this part 63. Such changes include losses by air emissions; reduction of annual average concentration or changes in flow rate by mixing with other water or wastewater streams; and reduction in flow rate or annual average concentration by treating or otherwise handling the wastewater stream to remove or destroy HAP.

Predominant HAP means as used in calibrating an analyzer, the single organic HAP that constitutes the largest percentage of the total organic HAP in the analyzed gas stream, by volume.

Process condenser means a condenser whose primary purpose is to recover material as an integral part of an MCPU. All condensers recovering condensate from an MCPU at or above the boiling point or all condensers in line prior to a vacuum source are considered process condensers. Typically, a primary condenser or condensers in series are considered to be integral to the MCPU if they are capable of and normally used for the purpose of recovering chemicals for fuel value (i.e., net positive heating value), use, reuse or for sale for fuel value, use, or reuse. This definition does not apply to a condenser that is used to remove materials that would hinder performance of a downstream recovery device as follows:

(1) To remove water vapor that would cause icing in a downstream condenser, or

(2) To remove water vapor that would negatively affect the adsorption capacity of carbon in a downstream carbon adsorber, or

(3) To remove high molecular weight organic compounds or other organic compounds that would be difficult to remove during regeneration of a downstream carbon adsorber.

Process tank means a tank or vessel that is used within a process to collect material discharged from a feedstock storage tank or equipment within the process before the material is transferred to other

equipment within the process or a product storage tank. A process tank has emissions that are related to the number of batches, and it does not accumulate product over multiple batches. A tank that is used to accumulate used solvent from multiple batches of a single process for purposes of solvent recovery is a process tank and does not represent the end of a process. Surge control vessels and bottoms receivers are not process tanks.

Production-indexed HAP consumption factor (HAP factor) means the result of dividing the annual consumption of total HAP by the annual production rate, per process.

Production-indexed VOC consumption factor (VOC factor) means the result of dividing the annual consumption of total VOC by the annual production rate, per process.

Quaternary ammonium compounds means a type of organic nitrogen compound in which the molecular structure includes a central nitrogen atom joined to four organic groups as well as an acid radical of some sort.

Recovery device means an individual unit of equipment used for the purpose of recovering chemicals from process vent streams and from wastewater streams for fuel value (i.e., net positive heating value), use, reuse, or for sale for fuel value, use, or reuse. For the purposes of meeting requirements in Table 2 to this subpart, the recovery device must not be a process condenser and must recover chemicals to be reused in a process on site. Examples of equipment that may be recovery devices include absorbers, carbon adsorbers, condensers, oil-water separators or organic-water separators, or organic removal devices such as decanters, strippers, or thin-film evaporation units. To be a recovery device for a wastewater stream, a decanter and any other equipment based on the operating principle of gravity separation must receive only multi-phase liquid streams.

Responsible official means responsible official as defined in 40 CFR 70.2.

Safety device means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purposes of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials.

Shutdown means the cessation of operation of a continuous operation for any purpose. Shutdown also means the cessation of a batch operation, or any related individual piece of equipment required or used to comply with this subpart, if the steps taken to cease operation differ from those described in a standard batch or nonstandard batch. Shutdown also applies to emptying and degassing storage vessels. Shutdown does not apply to cessation of batch operations at the end of a campaign or between batches within a campaign when the steps taken are routine operations.

Small control device means a control device that controls total HAP emissions of less than 10 tpy, before control.

Standard batch means a batch process operated within a range of operating conditions that are documented in an operating scenario. Emissions from a standard batch are based on the operating conditions that result in highest emissions. The standard batch defines the uncontrolled and controlled emissions for each emission episode defined under the operating scenario.

Startup means the setting in operation of a continuous operation for any purpose; the first time a new or reconstructed batch operation begins production; for new equipment added, including equipment required or used to comply with this subpart, the first time the equipment is put into operation; or for the introduction of a new product/process, the first time the product or process is run in equipment. For batch operations, startup applies to the first time the equipment is put into operation at the start of a campaign to produce a product that has been produced in the past if the steps taken to begin production differ from those specified in a standard batch or nonstandard batch. Startup does not apply when the equipment is put into operation as part of a batch within a campaign when the steps taken are routine operations.

Storage tank means a tank or other vessel that is used to store liquids that contain organic HAP and/or hydrogen halide and halogen HAP and that has been assigned to an MCPU according to the procedures in §63.2435(d). The following are not considered storage tanks for the purposes of this subpart:

(1) Vessels permanently attached to motor vehicles such as trucks, railcars, barges, or ships;

(2) Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere;

(3) Vessels storing organic liquids that contain HAP only as impurities;

(4) Wastewater storage tanks;

(5) Bottoms receivers;

(6) Surge control vessels; and

(7) Process tanks.

Supplemental gases means the air that is added to a vent stream after the vent stream leaves the unit operation. Air that is part of the vent stream as a result of the nature of the unit operation is not considered supplemental gases. Air required to operate combustion device burner(s) is not considered supplemental gases.

Surge control vessel means feed drums, recycle drums, and intermediate vessels as part of any continuous operation. Surge control vessels are used within an MCPU when in-process storage, mixing, or management of flowrates or volumes is needed to introduce material into continuous operations.

Total organic compounds or (TOC) means the total gaseous organic compounds (minus methane and ethane) in a vent stream.

Transfer rack means the collection of loading arms and loading hoses, at a single loading rack, that are assigned to an MCPU according to the procedures specified in §63.2435(d) and are used to fill tank trucks and/or rail cars with organic liquids that contain one or more of the organic HAP listed in section 112(b) of the CAA of this subpart. Transfer rack includes the associated pumps, meters, shutoff valves, relief valves, and other piping and valves.

Unit operation means those processing steps that occur within distinct equipment that are used, among other things, to prepare reactants, facilitate reactions, separate and purify products, and recycle materials. Equipment used for these purposes includes, but is not limited to, reactors, distillation columns, extraction columns, absorbers, decanters, dryers, condensers, and filtration equipment.

Waste management unit means the equipment, structure(s), and/or device(s) used to convey, store, treat, or dispose of wastewater streams or residuals. Examples of waste management units include

wastewater tanks, air flotation units, surface impoundments, containers, oil-water or organic-water separators, individual drain systems, biological wastewater treatment units, waste incinerators, and organic removal devices such as steam and air stripper units, and thin film evaporation units. If such equipment is being operated as a recovery device, then it is part of a miscellaneous organic chemical manufacturing process and is not a waste management unit.

Wastewater means water that is discarded from an MCPU or control device through a POD and that contains either: an annual average concentration of compounds in Tables 8 and 9 to this subpart of at least 5 ppmw and has an annual average flowrate of 0.02 liters per minute or greater; or an annual average concentration of compounds in Tables 8 and 9 to this subpart of at least 10,000 ppmw at any flowrate. Wastewater means process wastewater or maintenance wastewater. The following are not considered wastewater for the purposes of this subpart:

(1) Stormwater from segregated sewers;

(2) Water from fire-fighting and deluge systems, including testing of such systems;

(3) Spills;

(4) Water from safety showers;

(5) Samples of a size not greater than reasonably necessary for the method of analysis that is used;

(6) Equipment leaks;

(7) Wastewater drips from procedures such as disconnecting hoses after cleaning lines; and

(8) Noncontact cooling water.

Wastewater stream means a stream that contains only wastewater as defined in this paragraph (i).

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

Appendix C

Summary of Initial Compliance Requirements for Process Vents and Monitoring Requirements for Various Types of Vent Streams

[This page intentionally left blank.]

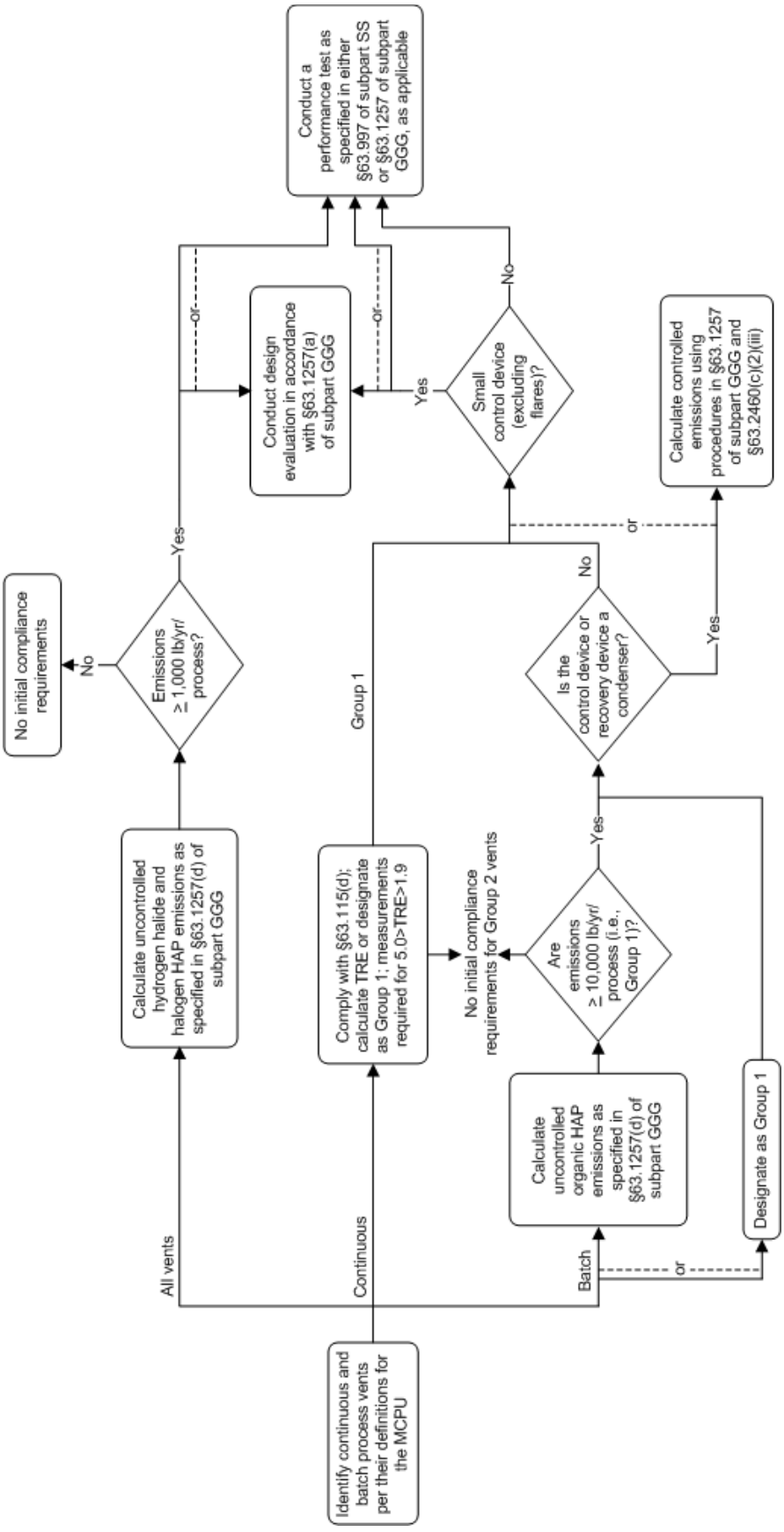

Figure C-1. Initial compliance demonstration for process vents.

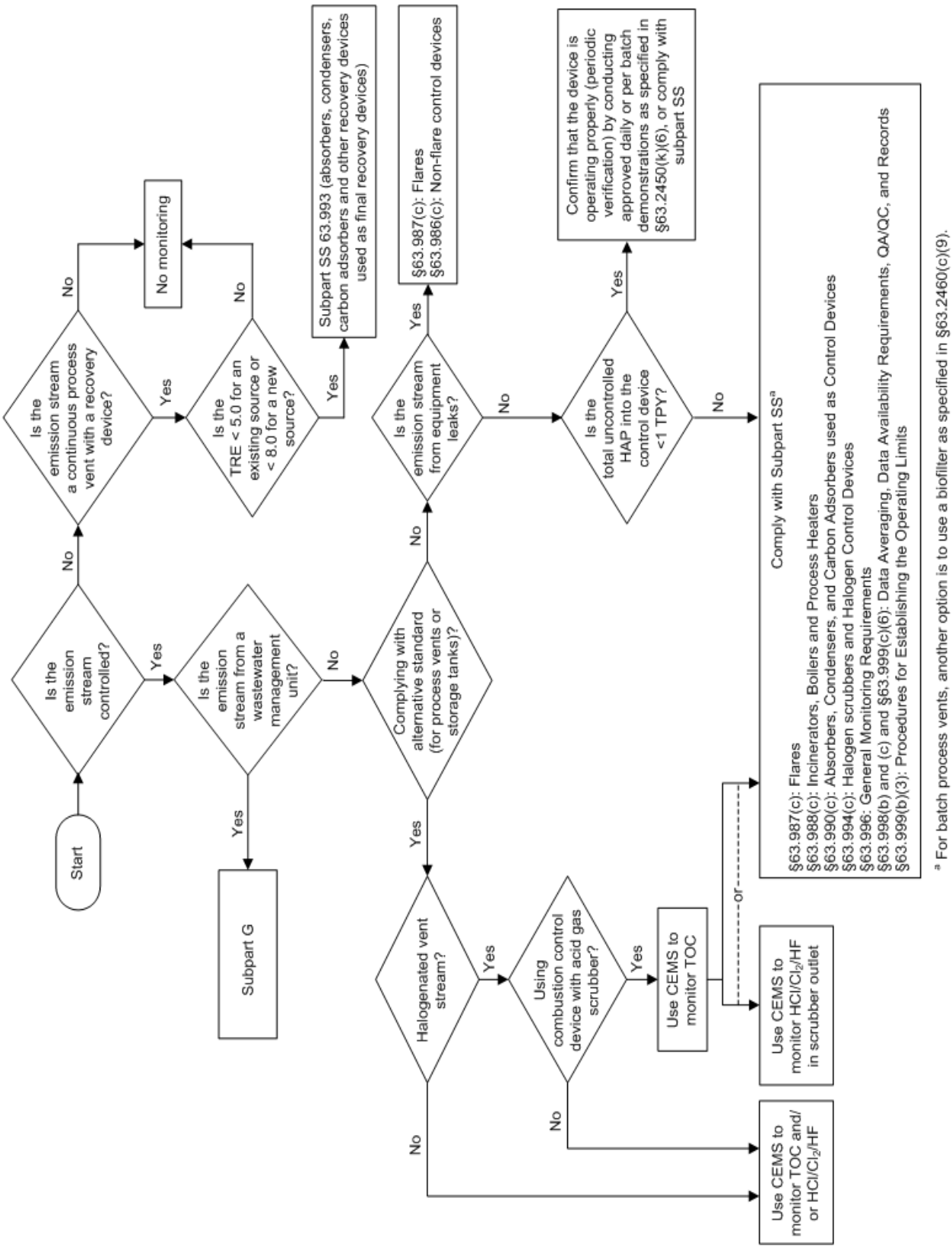

Figure C-2. Monitoring of vent streams.

Appendix D

Inspection and Monitoring Requirements for Waste Management Units as Specified in Table 11 to 40 CFR Part 63, Subpart G

[This page intentionally left blank.]

TABLE 11.—WASTEWATER—INSPECTION AND MONITORING REQUIREMENTS FOR WASTE MANAGEMENT UNITS

To comply with	Inspection or monitoring requirement	Frequency of inspection or monitoring	Method
Tanks:			
63.133(b)(1)	Inspect fixed roof and all openings for leaks	Initially Semi-annually	Visual.
63.133(c)	Inspect floating roof in accordance with §§ 63.120 (a)(2) and (a)(3).	See § 63.120 (a)(2) and (a)(3).	Visual.
63.133(d)	Measure floating roof seal gaps in accordance with §§ 63.120 (b)(2)(i) through (b)(4).		See § 63.120 (b)(2)(i) through (b)(4).
	—Primary seal gaps	Once every 5 years Initially Annually.	
	—Secondary seal gaps	.	
63.133(f) 63.133(g)	Inspect wastewater tank for control equipment failures and improper work practices.	Initially Semi-annually	Visual.
Surface impoundments:			
63.134(b)(1)	Inspect cover and all openings for leaks	Initially Semi-annually	Visual.
63.134(c)	Inspect surface impoundment for control equipment failures and improper work practices.	Initially Semi-annually	Visual.
Containers:			
63.135(b)(1), 63.135(b)(2) (ii).	Inspect cover and all openings for leaks	Initially Semi-annually	Visual.
63.135(d)(1)	Inspect enclosure and all openings for leaks	Initially Semi-annually	Visual.
63.135(e)	Inspect container for control equipment failures and improper work practices.	Initially Semi-annually	Visual.
Individual Drain Systems[a]:			
63.136(b)(1)	Inspect cover and all openings to ensure there are no gaps, cracks, or holes.	Initially Semi-annually	Visual.
63.136(c)	Inspect individual drain system for control equipment failures and improper work practices.	Initially Semi-annually	Visual.
63.136(e)(1)	Verify that sufficient water is present to properly maintain integrity of water seals.	Initially Semi-annually	Visual.
63.136(e)(2), 63.136(f)(1).	Inspect all drains using tightly-fitted caps or plugs to ensure caps and plugs are in place and properly installed.	Initially Semi-annually	Visual.

TABLE 11.—WASTEWATER—INSPECTION AND MONITORING REQUIREMENTS FOR WASTE MANAGEMENT UNITS—Continued

To comply with	Inspection or monitoring requirement	Frequency of inspection or monitoring	Method
63.136(f)(2)	Inspect all junction boxes to ensure covers are in place and have no visible gaps, cracks, or holes.	Initially Semi-annually	Visual or smoke test or other means as specified.
63.136(f)(3)	Inspect unburied portion of all sewer lines for cracks and gaps.	Initially Semi-annually	Visual.
Oil-water separators:			
63.137(b)(1)	Inspect fixed roof and all openings for leaks	Initially Semi-annually	Visual.
63.137(c)	Measure floating roof seal gaps in accordance with 40 CFR 60.696(d)(1).	Initially[b]	See 40 CFR 60.696(d)(1).
	—Primary seal gaps	Once every 5 years.	
63.137(c)	—Secondary seal gaps	Initially[b] Annually.	
63.137(d)	Inspect oil-water separator for control equipment failures and improper work practices.	Initially Semi-annually	Visual.

[a] As specified in § 63.136(a), the owner or operator shall comply with either the requirements of § 63.136 (b) and (c) or § 63.136 (e) and (f).
[b] Within 60 days of installation as specified in §63.137(c).

[This page intentionally left blank.]

Appendix E

Control Equipment Failure for Waste Management Units

[This page intentionally left blank.]

Table E-1. Example Control Equipment Failures for Waste Management Units

For each . . .	Control equipment failures include, but are not limited to . . .	According to the following section of the rule . . .
wastewater tank	• the floating roof is not resting on either the surface of the liquid or on the leg supports • there is stored liquid on the floating roof • a rim seal is detached from the floating roof • there are holes, tears, cracks, or gaps in the rim seal or seal fabric of the floating roof • there are visible gaps between the seal of an internal floating roof and the wall of the wastewater tank • there are gaps between the metallic shoe seal or the liquid mounted primary seal of an external floating roof and the wasll of the wastewater tank that exceed 212 square centimeters per meter of tank diameter or the width of any portion oof any gap between the primary seal and the tank wall exceeds 3.81 centimeters • there are gaps between the secondary seal of an external floating roof and the wall of the wastewater tank that exceed 21.2 square centimeters per meter of tank diameter or the width of any portion of any gap between the secondary seal and the tank wall exceeds 1.27 centimeters • where a metallic shoe seal is used on an external floating roof, one end of the metallic shoe does not extend into the stored liquid or one end of the metallic shoe does not extend a minimum vertical distance of 61 centimeters above the surface of the stored liquid • a gasket, joint, lid, cover, or door has a crack, gap, or is broken	§63.133(g)(1)(i) through (ix)
surface impoundment	any time a joint, lid, cover, or door has a crack or gap, or is broken	§63.134(c)(2)
container	any time a cover or door has a gap, crack, or is broken	§63.135(e)(2)
individual drain system covered in accordance with §63.136(b)	any time a joint, lid, cover, or door has a gap or crack, or is broken	§63.136(c)(2)

For each . . .	Control equipment failures include, but are not limited to . . .	According to the following section of the rule . . .
oil-water separator	• the floating roof is not resting on either the surface of the liquid or on the leg supports • there is stored liquid on the floating roof • a rim seal is detached from the floating roof • there are holes, tears, or other open spaces in the rim seal or seal fabric of the floating roof • there are gaps between the primary seal and the separator wall that exceed 67 square centimeters per meter of separator wall perimeter or the width of any portion of any gap between the primary seal and the separator wall exceeds 3.8 centimeters • there are gaps between the secondary seal and the separator wall that exceed 6.7 square centimeters per meter of separator wall perimeter or the width of any portion of any gap between the secondary seal and the separator wall exceeds 1.3 centimeters • a gasket, joint, lid, cover, or door has a gap or crack, or is broken	§63.137(e)(1)(i) through (vii)